

ABSTRACT

The present invention provides a $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ compound containing an O_2^- ion radical and/or an O^- ion radical in a high concentration of 10^{20} cm^{-3} or more. This compound can be used as an oxidization catalyst, antibacterial agent, ion conductor, or electrode material for solid-oxide fuel cells.